

APPENDIX

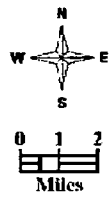
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Route No.	Route Name	Overall							
		Start MP	Map	End MP	Map	Start MP	Map	End MP	Map
H-1	H-1 Fwy.	0.00 (Palalai I/C)	A2	27.16 (Ainakoa Ave.)	A4	5.11 (EB Off-Ramp to Ft. Weaver Rd., Kunia Rd.)	A2	15.22 (Kam. Hwy. O/P)	A3
						18.28 (0.2 mi after EB Off-Ramp to Dillingham Blvd.)	A3	19.36 (Gulick Ave. O/P)	A3
						20.80 (Liliha St. O/P)	A3	22.59 (Piikoi St. U/P)	A4
						23.18 (Punahou St. O/P)	A4	24.43 (EB Off-Ramp to King St.)	A4
						24.83 (Kapiolani I/C at Kapahulu Ave.)	A4	25.55 (10th Ave. U.P.)	A4
H-2	H-2 Fwy.	0.00 (Waiawa I/C)	A2	8.33 (Wilikina Dr.)	A1	0.00 (Waiawa I/C)	A2	8.33 (Wilikina Dr.)	A1
H-3	H-3 Fwy.	0.00 (Halawa I/C)	A3	15.32 (MCBH-Kaneohe)	A4	0.00 (Halawa I/C)	A3	6.47 (End H3 Tunnel, Kaneohe Bound)	A4
						7.47 (One Mile After H- 3 Tunnel Exit, Kaneohe Bound)	A4	13.66 (0.25 mile After Kailua Separation)	A4
H-201	Moanalua Fwy.	0.00 (Rte. 78/ Halawa I/C)	A3	4.09 (Middle St. I/C)	A3	0.00 (Rte. 78/ Halawa I/C)	A3	1.50 (Ala Kapuna Rd. O/P)	A3
61	Pali Hwy., Kalaniana'ole Hwy., Kailua Rd.	0.00 (Vineyard Blvd.)	A3	10.60 (Kawainui Br.)	A4	0.00 (Vineyard Blvd.)	A3	10.60 (Kawainui Br.)	A4
63	Kalihi St., Likelike Hwy.	0.00 (Nimitz Hwy.)	A3	8.28 (Kahekili Hwy.)	A4	1.42 (Kalihi St. North of Kam. Shopping Center)	A3	8.28 (Kahekili Hwy.)	A4
64	Sand Island Pkwy. and Access Rd.	0.00 (S.I. Park)	A4	2.60 (Nimitz Hwy.)	A3	0.00 (S.I. Park)	A4	1.40 (Begin Bascule Bridge)	A3
						1.53 (End Bascule Bridge)	A3	2.60 (Nimitz Hwy.)	A3
65	Kaneohe Bay Dr., Mokapu Blvd.	0.00 (Kam. Hwy.)	A4	4.15 (Kalaheo Ave.)	A4	0.00 (Kam. Hwy.)	A4	4.15 (Kalaheo Ave.)	A4
72	Kalaniana'ole Hwy.	0.00 (Kailua Rd.)	A4	18.46 (Ainakoa Ave.)	A4	0.00 (Kailua Rd.)	A4	3.35 (Poalima St.)	A4
76	Ft. Weaver Rd., Kunia Rd.	0.00 (Iroquois Gate)	A2	6.64 (H-1)	A2	6.01 (Farr. Hwy.)	A2	6.64 (H-1)	A2

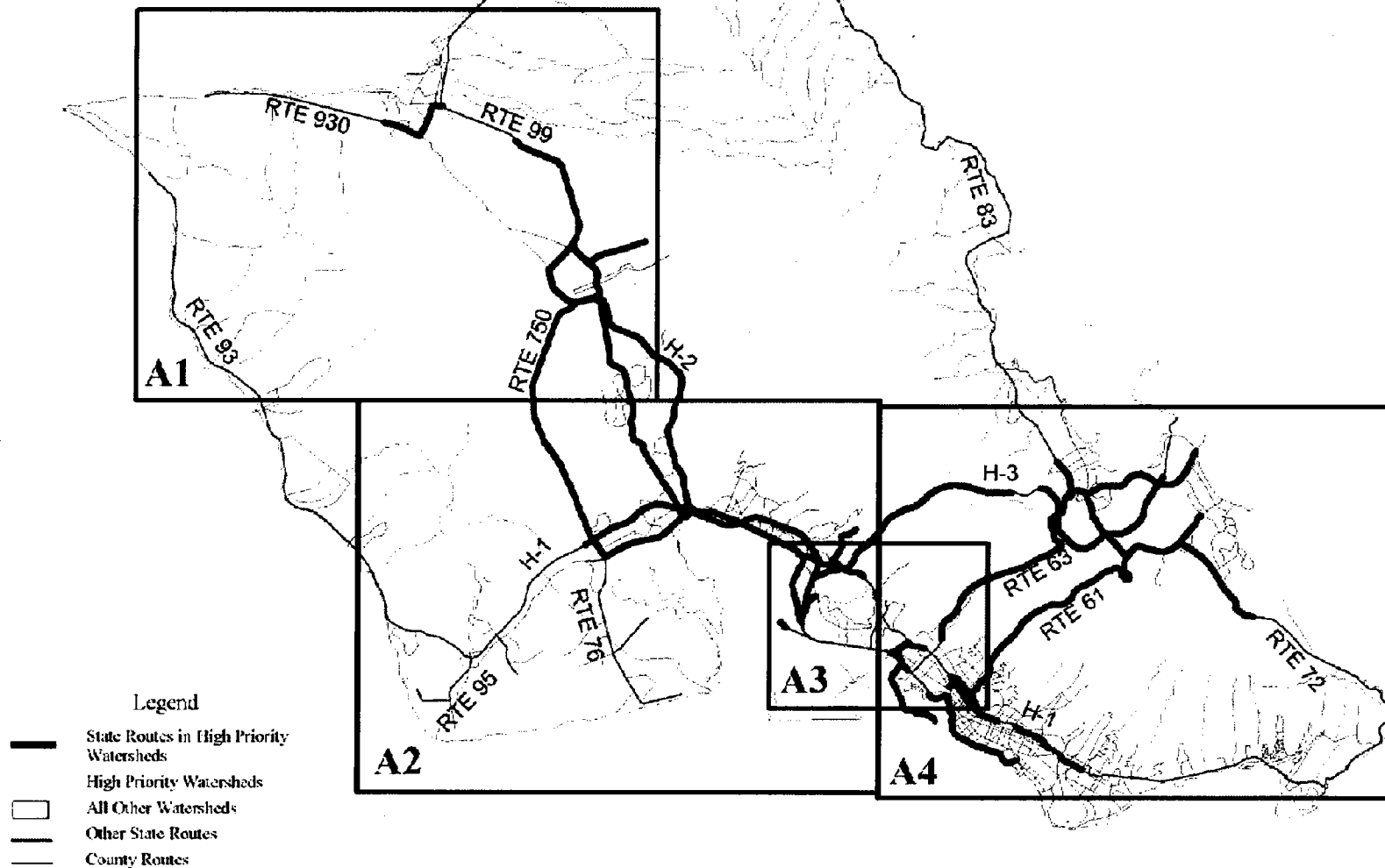
Route No.	Route Name	Overall							
		Start MP	Map	End MP	Map	Start MP	Map	End MP	Map
78	Moanalua Fwy.	0.00 Aiea I/C	A3	0.74 (Rte. H-201/ Halawa I/C)	A3	0.00 Aiea I/C	A3	0.74 (Rte. H-201/ Halawa I/C)	A3
80	Kamehameha Hwy.	0.00 (Wilikina Dr.)	A1	1.88 (Kamananui Rd.)	A1	0.00 (Wilikina Dr.)	A1	1.88 (Kamananui Rd.)	A1
83	Kamehameha Hwy., Kahekili Hwy., Likelike Hwy.	0.00 (Weed Circle)	A1	43.92 (Pali Hwy.)	A4	39.59 (Haiku Rd.)	A4	43.92 (Pali Hwy.)	A4
92	Nimitz Hwy., Ala Moana Blvd.	0.00 (Pearl Harbor Main Gate)	A3	9.26 (Kalakaua Ave.)	A4	0.00 (Pearl Harbor Main Gate)	A3	0.24 (On Ramp from O'Malley Blvd.- Hickam Main Gate)	
						3.52 (Middle St.)	A3	4.28 (Mokaeuea St.)	A3
						5.27 (Rd. to Chevron Oil)	A3	9.26 (Kalakaua Ave.)	A4
93	Farrington Hwy.	0.00 (Palalai I/C)	A2	19.53 (Kaena Pt.)	A1				
95	Kalaeloa Blvd., Malakole St.	0.00 (Palalai I/C)	A2	2.68 (Access Rd. Leading to Storage Yard)	A2				
98	Vineyard Blvd.	0.00 (Olomea St. @ H-1 Offramp)	A3	1.76 (Ramp to H-1 EB)	A4	0.34 (Pua Lane)	A3	1.76 (Ramp to H-1 EB)	A4
99	Kamehameha Hwy., Kamananui Rd., Wilikina Dr., Farrington Hwy.	0.00 (Weed Circle)	A1	23.83 (Pearl Harbor I/C)	A3	2.50 (2.50 Miles Mauka of Weed Circle)	A1	23.31 (Above H-1 Fwy. and EB Nimitz/Hickam Off-Ramp)	A3
750	Kunia Rd.	0.00 (H-1)	A2	8.05 (Wilikina Dr.)	A1	0.00 (H-1)	A2	8.05 (Wilikina Dr.)	A1
901	Ft. Barrette Rd.	0.00 (Barbers Pt. Rd.)	A2	1.38 (Makakilo O/P)	A2				
930	Farrington Hwy., Kaukonahua Rd.	0.00 (Kaena Pt.)	A1	7.92 (Weed Circle)	A1	5.52 (Puuiki St.)	A1	7.92 (Weed Circle)	A1
7012	Whitmore Ave.	0.00 (Kam. Hwy.)	A1	1.90 (Naval Comm. Sta.)	A1	0.00 (Kam. Hwy.)	A1	1.90 (Naval Comm. Sta.)	A1
7101	Farrington Hwy.	0.00 (Kunia Rd.)	A2	3.00 (Kam. Hwy. - Pearl City)	A2	0.00 (Kunia Rd.)	A2	3.00 (Kam. Hwy. - Pearl City)	A2
7110	Farrington Hwy.	0.00 (Kunia Rd.)	A2	0.62 (Old Ft. Weaver Rd.)	A2				
7141	Iroquois Rd.	0.00 (Ft. Weaver Rd.)	A2	1.51 (West Loch)	A2				
7239	Ulune St., Halawa Valley Rd.	0.00 (Kahuapaani St.)	A3	0.32 (Iwaiwa St.)	A3	0.00 (Kahuapaani St.)	A3	0.32 (Iwaiwa St.)	A3

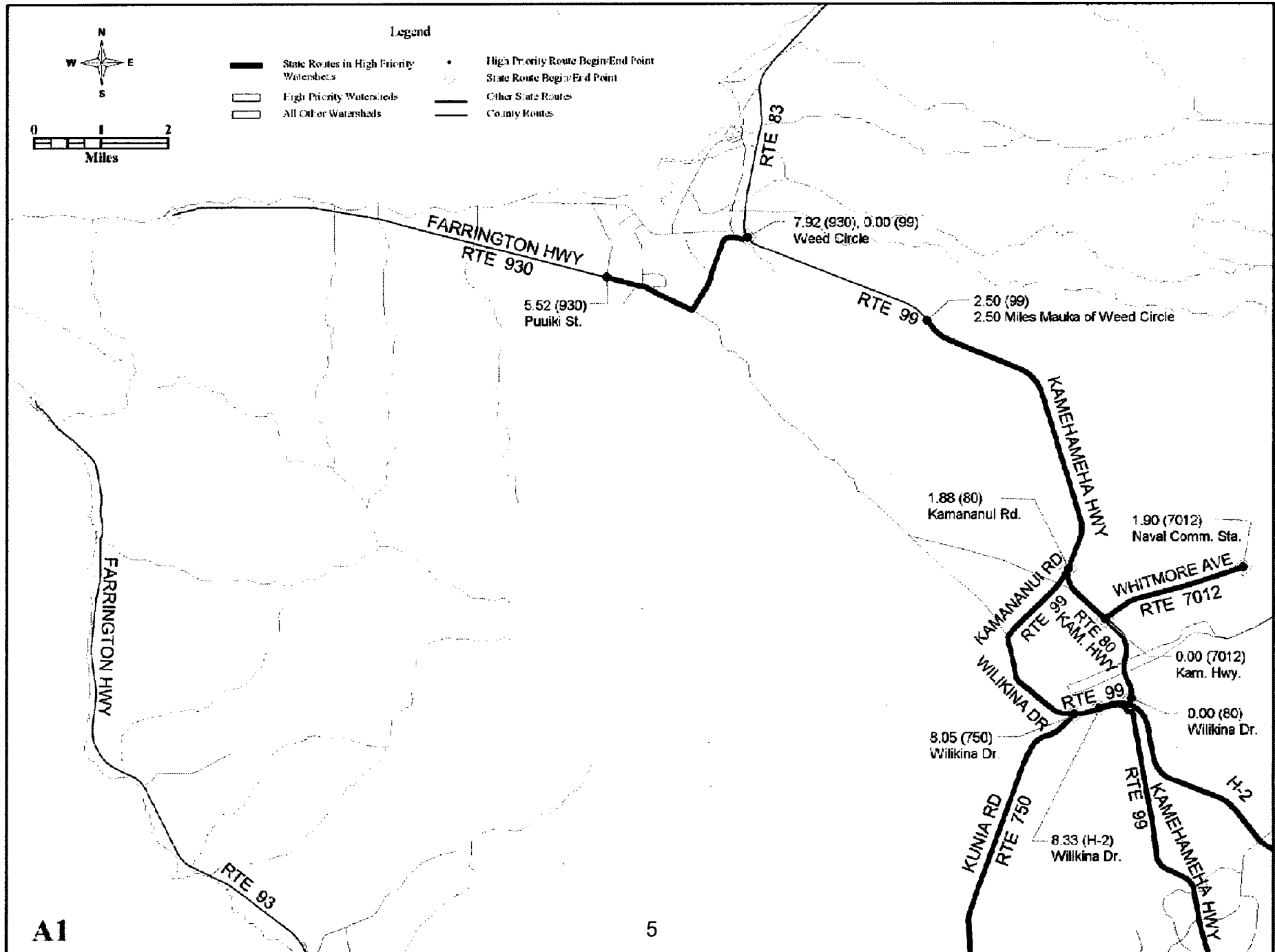
Route No.	Route Name	Overall							
		Start MP	Map	End MP	Map	Start MP	Map	End MP	Map
7241	Kahuapaani St., Halawa Hts. Rd.	0.00 (Salt Lake Blvd.)	A3	2.32 (Camp Smith)	A2	0.00 (Salt Lake Blvd.)	A3	2.32 (Camp Smith)	A2
7310	Puuloa Rd.	0.00 (Kam./Nimitz Hwy.)	A3	1.03 (Moanalua Fwy.)	A3				
7345	Jarrette White Rd.	0.00 (Moanalua Fwy.)	A3	0.55 (Tripler Hospital)	A3				
7350	Bouganville Dr.	0.00 (Radford Dr.)	A3	0.59 (Salt Lake Blvd.)	A3	0.00 (Radford Dr.)	A3	0.59 (Salt Lake Blvd.)	A3
7351	Radford Dr.	0.00 (Kam. Hwy.)	A3	0.23 (Bouganville Dr.)	A3	0.00 (Kam Hwy.)	A3	0.23 (Bouganville Dr.)	A3
7401	Kamehameha Hwy.	0.00 (Middle St.)	A3	0.10 (100' East of Kalihi Stream Bridge)	A3	0.00 (Middle St.)	A3	0.10 (100' East of Kalihi Stream Bridge)	A3
7413	Liliha St.	0.00 (King St.)	A3	0.35 (H-1 Liliha St. O/P)	A3	0.00 (King St.)	A3	0.35 (H-1 Liliha St. O/P)	A3
7415	Middle St.	0.00 (Kaua St.)	A3	0.51 (Kam. Hwy.)	A3	0.00 (Kaua St.)	A3	0.51 (Kam. Hwy.)	A3
7601	Old Waialae Rd.	0.00 (Kapiolani Blvd.)	A4	0.41 (King St.)	A4				

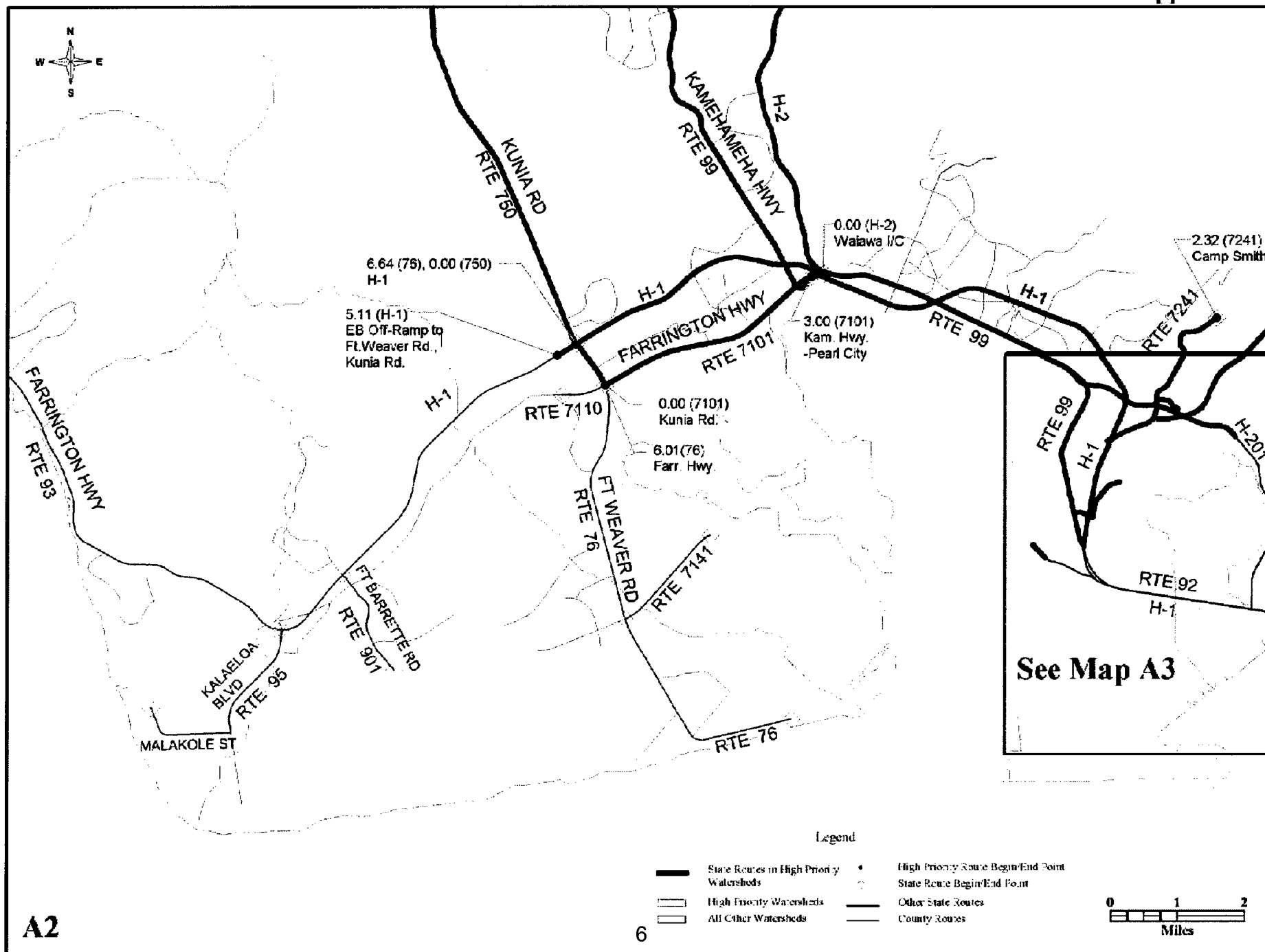
Based on Oahu 303d High Priority Watersheds and DOT Highways and Conveyances, as prepared by DOH-EPO.

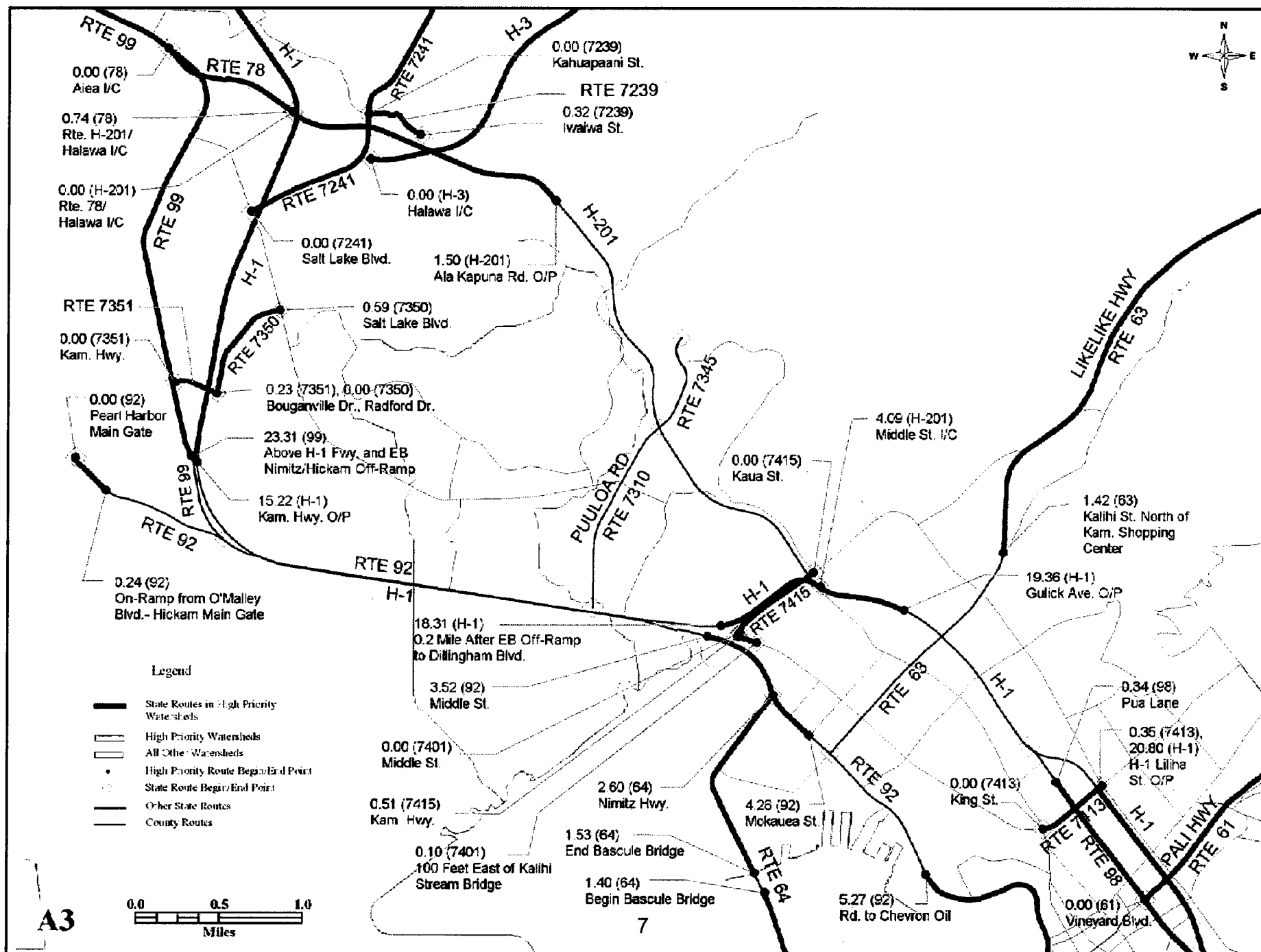


Appendix A
HDOT Highways Division
Oahu District MS4
State Routes and High Priority Watersheds

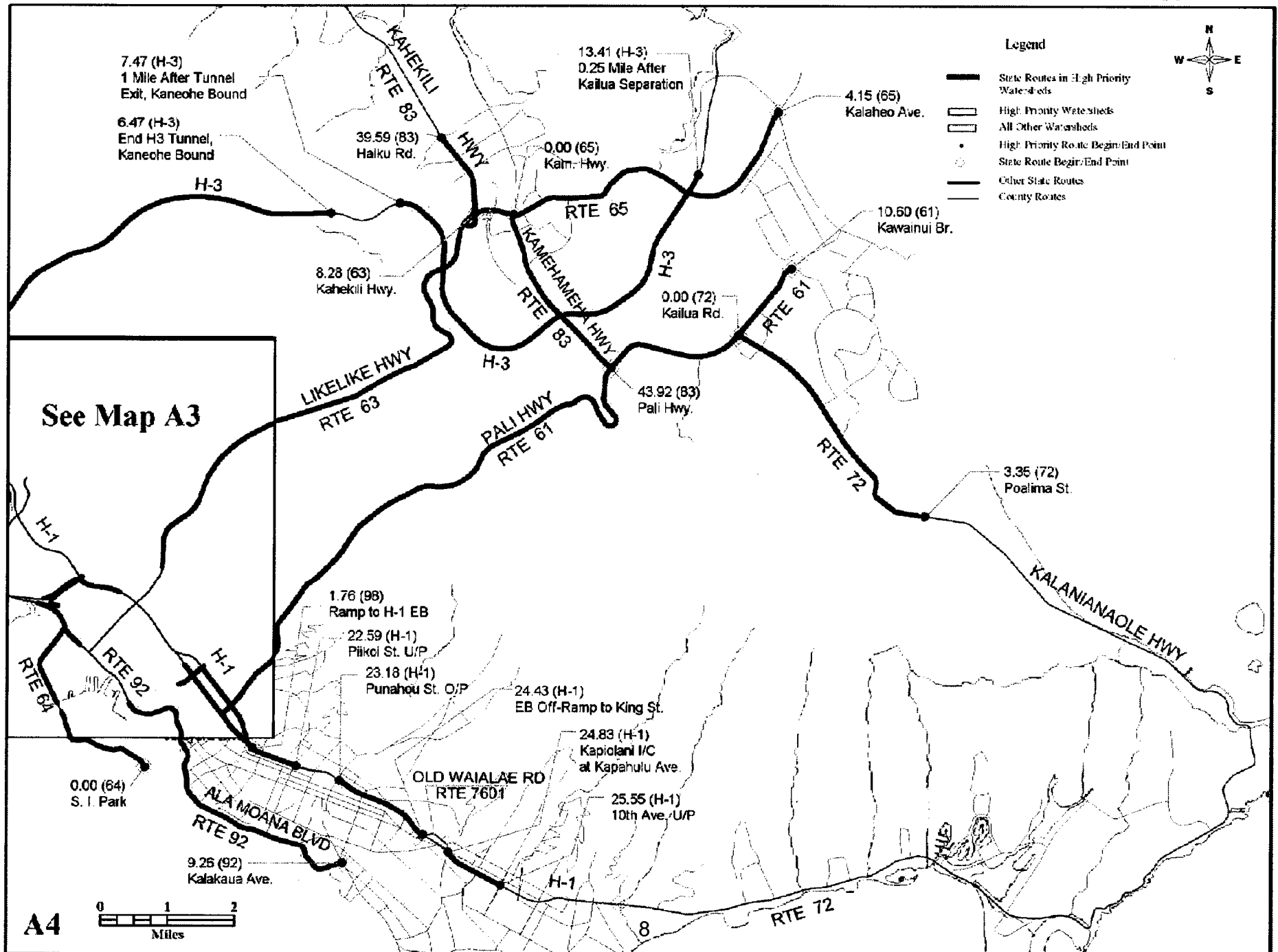








Appendix A



APPENDIX

B

Route No.	Route Name	Overall Segment Requiring Sweeping				High Priority Watersheds (To Be Swept Every 5 Weeks)											
		Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map
H-1	H-1 Fwy.	0.00 (Palalai I/C)	B2	27.16 (Ainakoa Ave.)	B4	5.11 (EB Off-Ramp to Ft. Weaver Rd., Kunia Rd.)	B2	15.22 (Kam. Hwy. O/P)	B3	0.00 (Palalai I/C)	B2	5.11 (EB Off-Ramp to Ft. Weaver Rd., Kunia Rd.)	B2				
						18.31 (0.2 mi after EB Off-Ramp to Dillingham Blvd.)	B3	19.36 (Gulick Ave. O/P)	B3	15.22 (Kam. Hwy. O/P)	B3	18.31 (0.2 mi after EB Off-Ramp to Dillingham Blvd.)	B3				
						20.80 (Liliha St. O/P)	B3	22.59 (Piikoi St. U/P)	B4	19.36 (Gulick Ave. O/P)	B3	20.80 (Liliha St. O/P)	B3				
						23.18 (Punahou St. O/P)	B4	24.43 (Off-Ramp to King St.)	B4	22.59 (Piikoi St. U/P)	B4	23.18 (Punahou St. O/P)	B4				
						24.83 (Kapiolani I/C at Kapahulu Ave.)	B4	25.55 (10th Ave. U/P)	B4	24.43 (EB Off-Ramp to King St.)	B4	24.83 (Kapiolani I/C at Kapahulu Ave.)	B4				
										25.55 (10th Ave. U/P)	B4	27.16 (Ainakoa Ave.)	B4				
H-2	H-2 Fwy.	0.00 (Waiawa I/C)	B2	8.33 (Wiikina Dr.)	B1	0.00 (Waiawa I/C)	B2	8.33 (Wiikina Dr.)	B1								
H-3	H-3 Fwy.	0.00 (Halawa I/C)	B3	15.32 (MCBH-Kaneohe)	B4	0.00 (Halawa I/C)	B3	6.47 (End Kaneohe Bound H-3 Tunnel)	B4	6.47 (End Kaneohe Bound H-3 Tunnel)	B4	7.47 (One Mile After H-3 Tunnel Exit, Kaneohe Bound)	B4				
						7.47 (One Mile After H-3 Tunnel Exit, Kaneohe Bound)	B4	13.66 (0.25 mile After Kailua Separation)	B4	13.66 (0.25 mile After Kailua Separation)	B4	15.32 (MCBH-Kaneohe)	B4				
H-201	Moanalua Fwy.	0.00 (Rte. 78/ Halawa I/C)	B3	4.09 (Middle St. I/C)	B3	0.00 (Rte. 78/ Halawa I/C)	B3	1.50 (Ala Kapuna Rd. O/P)	B3	1.50 (Ala Kapuna Rd. O/P)	B3	4.09 (Middle St. I/C)	B3				
61	Pali Hwy., Kalaniana'ole Hwy., Kailua Rd.	0.00 (Vineyard Blvd.)	B3	10.60 (Kawainui Br.)	B4	0.00 (Vineyard Blvd.)	B3	10.60 (Kawainui Br.)	B4								

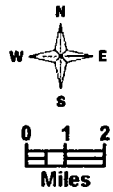
Route No.	Route Name	Overall Segment Requiring Sweeping				High Priority Watersheds (To Be Swept Every 5 Weeks)											
		Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map
63	Kalihi St., Likelike Hwy.	0.00 (Nimitz Hwy.)	B3	8.28 (Kahekili Hwy.)	B4	1.42 (Kalihi St. North of Kam. Shopping Ctr.)	B3	8.28 (Kahekili Hwy.)	B4					0.00 (Nimitz Hwy.)	B3	1.42 (Kalihi St. North of Kam. Shopping Ctr.)	B3
64	Sand Island Pkwy. and Access Rd.	0.00 (S.I. Park)	B3	2.60 (Nimitz Hwy.)	B3	0.00 (S.I. Park)	B4	1.40 (Begin Bascule Bridge)	B3					1.40 (Begin Bascule Bridge)	B3	1.53 (End Bascule Bridge)	B3
						1.53 (End Bascule Bridge)	B3	2.60 (Nimitz Hwy.)	B3								
65	Kaneohe Bay Dr., Mokapu Blvd.	0.00 (Kam. Hwy.)	B4	4.15 (Kalaheo Ave.)	B4	0.00 (Kam. Hwy.)	B4	4.15 (Kalaheo Ave.)	B4								
72	Kalaniana'ole Hwy.	0.00 (Kailua Rd.)	B4	18.46 (Ainakoa Ave.)	B4	0.00 (Kailua Rd.)	B4	3.35 (Poalima St.)	B4	13.26 (Lunalilo Hm. Rd.)	B4	18.46 (Ainakoa Ave.)	B4	3.35 (Poalima St.)	B4	13.26 (Lunalilo Hm. Rd.)	B4
76	Ft. Weaver Rd., Kunia Rd.	0.00 (Iroquois Gate)	B2	6.64 (H-1)	B2	6.01 (Farr. Hwy.)	B2	6.64 (H-1)	B2					0.00 (Iroquois Gate)	B2	6.01 (Farr. Hwy.)	B2
78	Moanalua Fwy.	0.00 Aiea I/C	B3	0.74 (Rte. H-201)	B3	0.00 Aiea I/C	B3	0.74 (Rte. H-201/ Halawa I/C)	B3								
80	Kamehameha Hwy.	0.00 (Wiilikina Dr.)	B1	1.88 (Kamananui Rd.)	B1	0.00 (Wiilikina Dr.)	B1	1.88 (Kamananui Rd.)	B1								
83	Kamehameha Hwy., Kahekili Hwy., Likelike Hwy.	0.00 (Weed Circle)	B1	43.92 (Pali Hwy.)	B4	39.92 (Kahuhipa Rd.)	B4	43.92 (Pali Hwy.)	B4					0.00 (Weed Circle)	B1	39.92 (Kahuhipa St.)	B4
92	Nimitz Hwy., Ala Moana Blvd.	0.00 (Pearl Harbor Main Gate)	B3	9.26 (Kalakaua Ave.)	B4	0.00 (Pearl Harbor Main Gate)	B3	0.24 (On-Ramp from O'Malley Blvd. - Hickam Main Gate)	B3					0.24 (On-Ramp from O'Malley Blvd. - Hickam Main Gate)	B3	3.52 (Middle St.)	B3
						3.52 (Middle St.)	B3	4.28 (Mokauea St.)	B3	4.28 (Mokauea St.)	B3	5.27 (Rd. to Chevron Oil)	B3				
						5.27 (Rd. to Chevron Oil)	B3	9.26 (Kalakaua Ave.)	B4								

Route No.	Route Name	Overall Segment Requiring Sweeping				High Priority Watersheds (To Be Swept Every 5 Weeks)											
		Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map
93	Farrington Hwy.	0.00 (Palalai I/C)	B2	19.53 (Kaena Pt.)	B1									0.00 (Palalai I/C)	B2	19.53 (Kaena Pt.)	B1
95	Kalaeloa Blvd., Malakole St.	0.00 (Palalai I/C)	B2	2.68 (Access Rd. Leading to Storage Yard)	B2									0.00 (Palalai I/C)	B2	2.68 (Access Rd. Leading to Storage Yard)	B2
98	Vineyard Blvd.	0.00 (Olomea St. @ H- 1 EB Off-Ramp)	B3	1.76 (Ramp to H-1 EB)	B3	0.34 (Pua Lane)	B3	1.76 (Ramp to H-1 EB)	B4	0.00 (Olomea St. @ H-1 EB Off-Ramp)	B3	0.34 (Pua Lane)	B3				
99	Kamehameha Hwy., Kamananui Rd., Wiilikina Dr., Farrington Hwy.	0.00 (Weed Circle)	B1	23.83 (Pearl Harbor I/C)	B3	2.50 (2.5 Miles Mauka of Weed Circle)	B1	23.31 (Above H-1 Fwy. and EB Nimitz/Hickam Off- Ramp)	B3	23.31 (Above H-1 Fwy. and EB Nimitz/Hickam Off- Ramp)	B3	23.83 (Pearl Harbor I/C)	B3	0.00 (Weed Circle)	B1	2.50 (2.5 Miles Mauka of Weed Circle)	B1
750	Kunia Rd.	0.00 (H-1)	B2	8.05 (Wiilikina Dr.)	B1	0.00 (H-1)	B2	8.05 (Wiilikina Dr.)	B1								
901	Ft. Barrette Rd.	0.00 (Barbers Pt. Rd.)	B2	1.38 (Makakilo O/P)	B2									0.00 (Barbers Pt. Rd.)	B2	1.38 (Makakilo O/P)	B2
930	Farrington Hwy., Kaukonahua Rd.	0.00 (Kaena Pt.)	B1	7.92 (Weed Circle)	B1	5.52 (Puuiiki St.)	B1	7.92 (Weed Circle)	B1					0.00 (Kaena Pt.)	B1	5.52 (Puuiiki St.)	B1
7012	Whitmore Ave.	0.00 (Kam. Hwy.)	B1	1.90 (Naval Comm. Sta.)	B1	0.00 (Kam. Hwy.)	B1	1.90 (Naval Comm. Sta.)	B1								
7101	Farrington Hwy.	0.00 (Kunia Rd.)	B2	3.00 (Kam. Hwy. - Pearl City)	B2	0.00 (Kunia Rd.)	B2	3.00 (Kam. Hwy. - Pearl City)	B2								
7110	Farrington Hwy.	0.00 (Kunia Rd.)	B2	0.62 (Old Ft. Weaver Rd.)	B2									0.00 (Kunia Rd.)	B2	0.62 (Old Ft. Weaver Rd.)	B2
7141	Iroquois Rd.	0.00 (Ft. Weaver Rd.)	B2	1.51 (West Loch)	B2									0.00 (Ft. Weaver Rd.)	B2	1.51 (West Loch)	B2
7239	Ulune St., Halawa Valley Rd.	0.00 (Kahuapaani St.)	B3	0.32 (Iwaiwa St.)	B3	0.00 (Kahuapaani St.)	B3	0.32 (Iwaiwa St.)	B3								
7241	Kahuapaani St., Halawa Hts. Rd.	0.00 (Salt Lake Blvd.)	B3	2.32 (Camp Smith)	B3	0.00 (Salt Lake Blvd.)	B3	2.32 (Camp Smith)	B2								

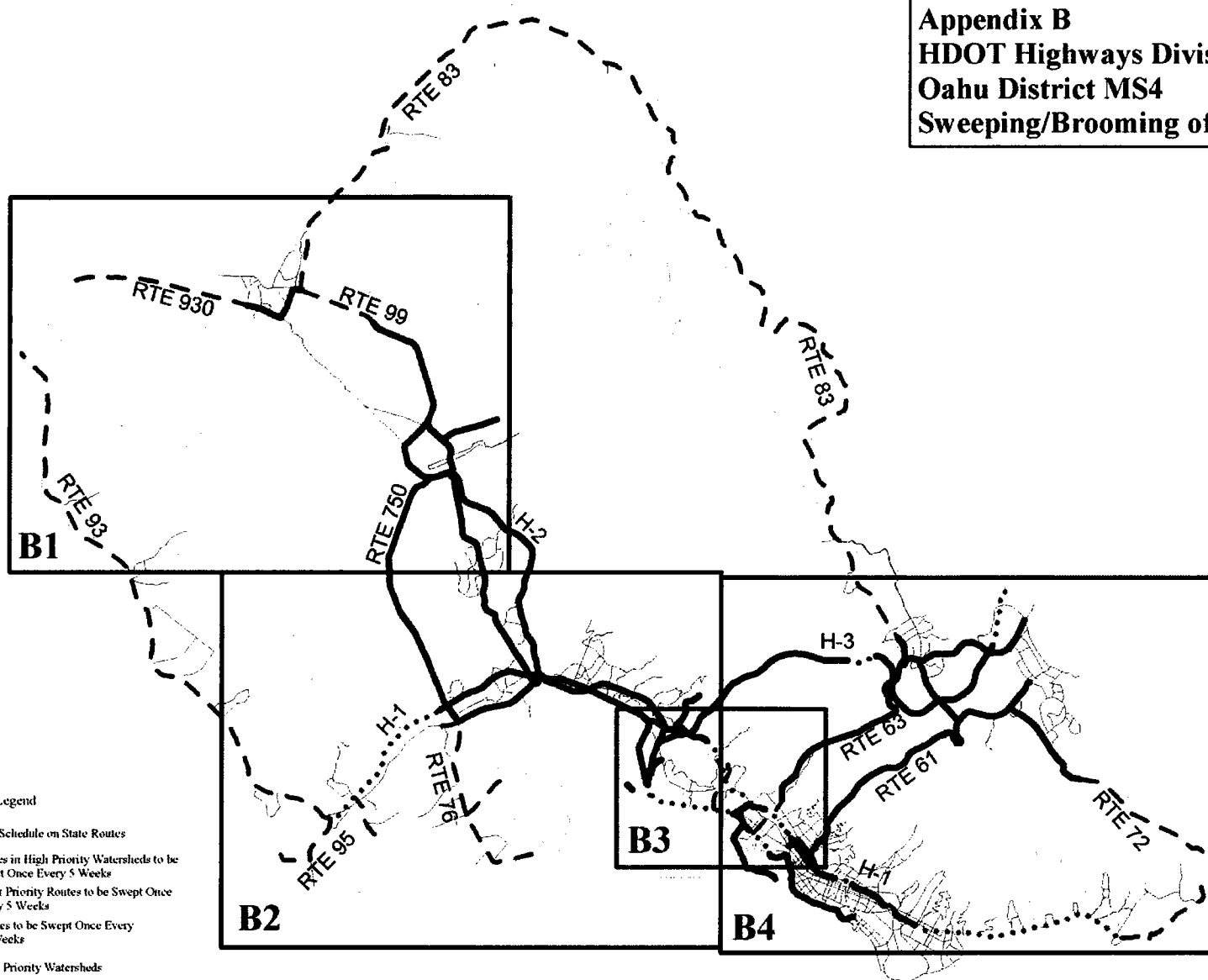
Street Sweeping

08/22/05

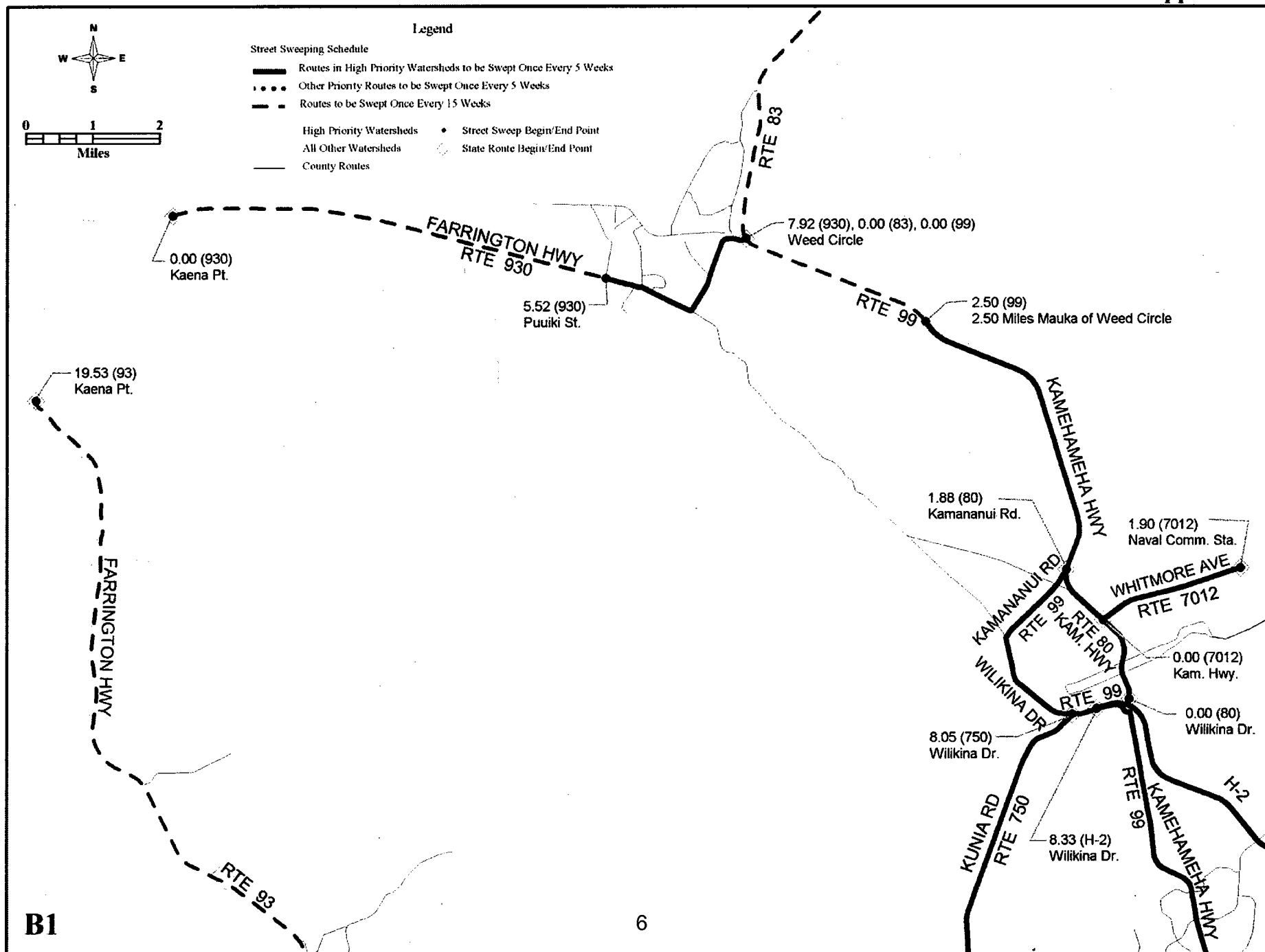
Route No.	Route Name	Overall Segment Requiring Sweeping				High Priority Watersheds (To Be Swept Every 5 Weeks)											
		Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map	Start MP	Map	End MP	Map
7310	Puuloa Rd.	0.00 (Kam./Nimitz Hwy.)	B3	1.03 (Moanalua Fwy.)	B3									0.00 (Kam./Nimitz Hwy.)	B3	1.03 (Moanalua Fwy.)	B3
7345	Jarrette White Rd.	0.00 (Moanalua Fwy.)	B3	0.55 (Tripler Hospital)	B3									0.00 (Moanalua Fwy.)	B3	0.55 (Tripler Hospital)	B3
7350	Bouganville Dr.	0.00 (Radford Dr.)	B3	0.59 (Salt Lake Blvd.)	B3	0.00 (Radford Dr.)	B3	0.59 (Salt Lake Blvd.)	B3								
7351	Radford Dr.	0.00 (Kam. Hwy.)	B3	0.23 (Bouganville Dr.)	B3	0.00 (Kam. Hwy.)	B3	0.23 (Bouganville Dr.)	B3								
7401	Kamehameha Hwy.	0.00 (Middle St.)	B3	0.10 (100' East of Kalihi Stream Bridge)	B3	0.00 (Middle St.)	B3	0.10 (100' East of Kalihi Stream Bridge)	B3								
7413	Liliha St.	0.00 (King St.)	B3	0.35 (H-1 Liliha St. O/P)	B3	0.00 (King St.)	B3	0.35 (H-1 Liliha St. O/P)	B3								
7415	Middle St.	0.00 (Kaua St.)	B3	0.51 (Kam. Hwy.)	B3	0.00 (Kaua St.)	B3	0.51 (Kam. Hwy.)	B3								
7601	Old Waialae Rd.	0.00 (Kapiolani Blvd.)	B4	0.41 (King St.)	B4									0.00 (Kapiolani Blvd.)	B4	0.41 (King St.)	B4

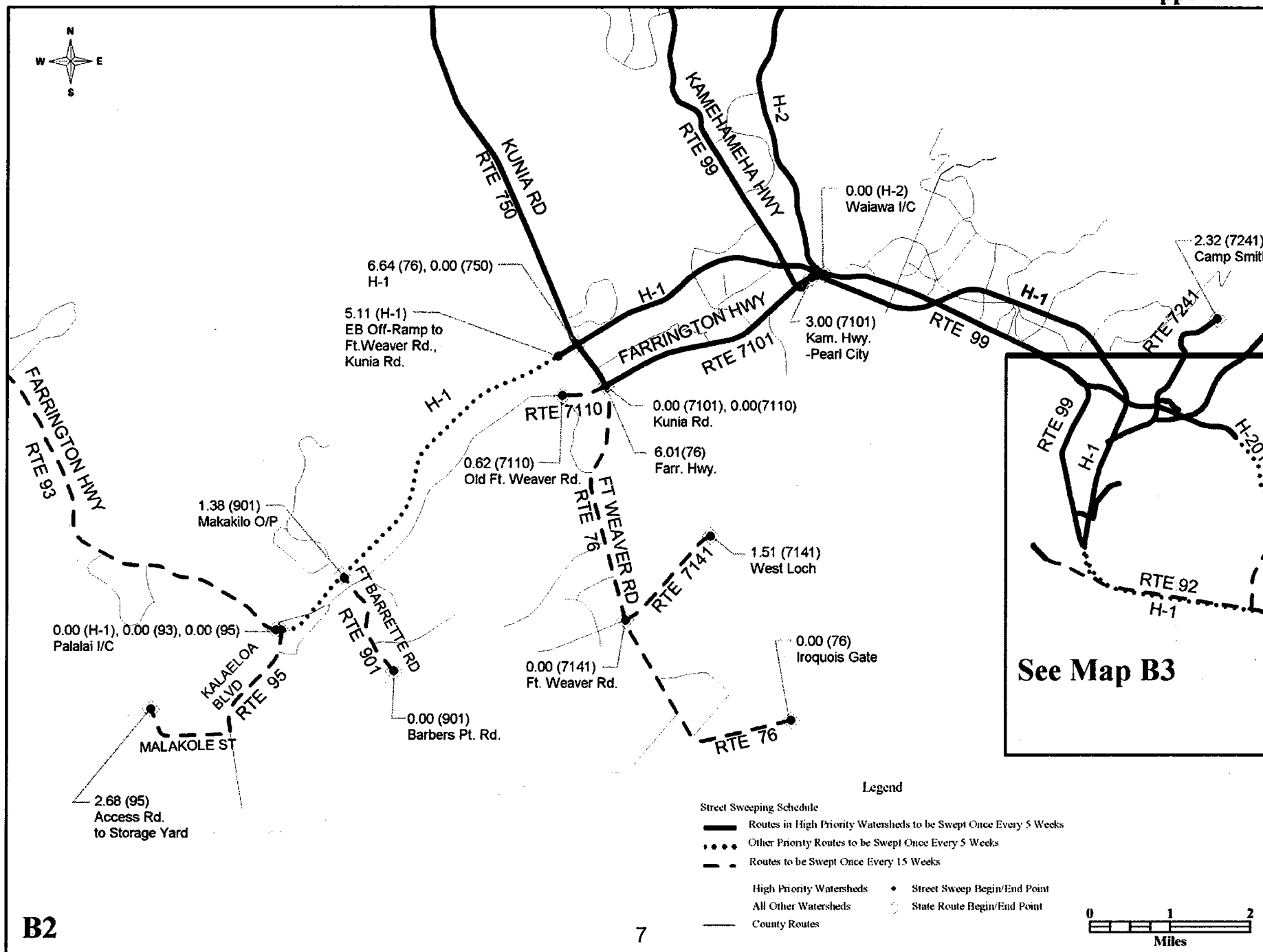


Appendix B
HDOT Highways Division
Oahu District MS4
Sweeping/Brooming of State Routes

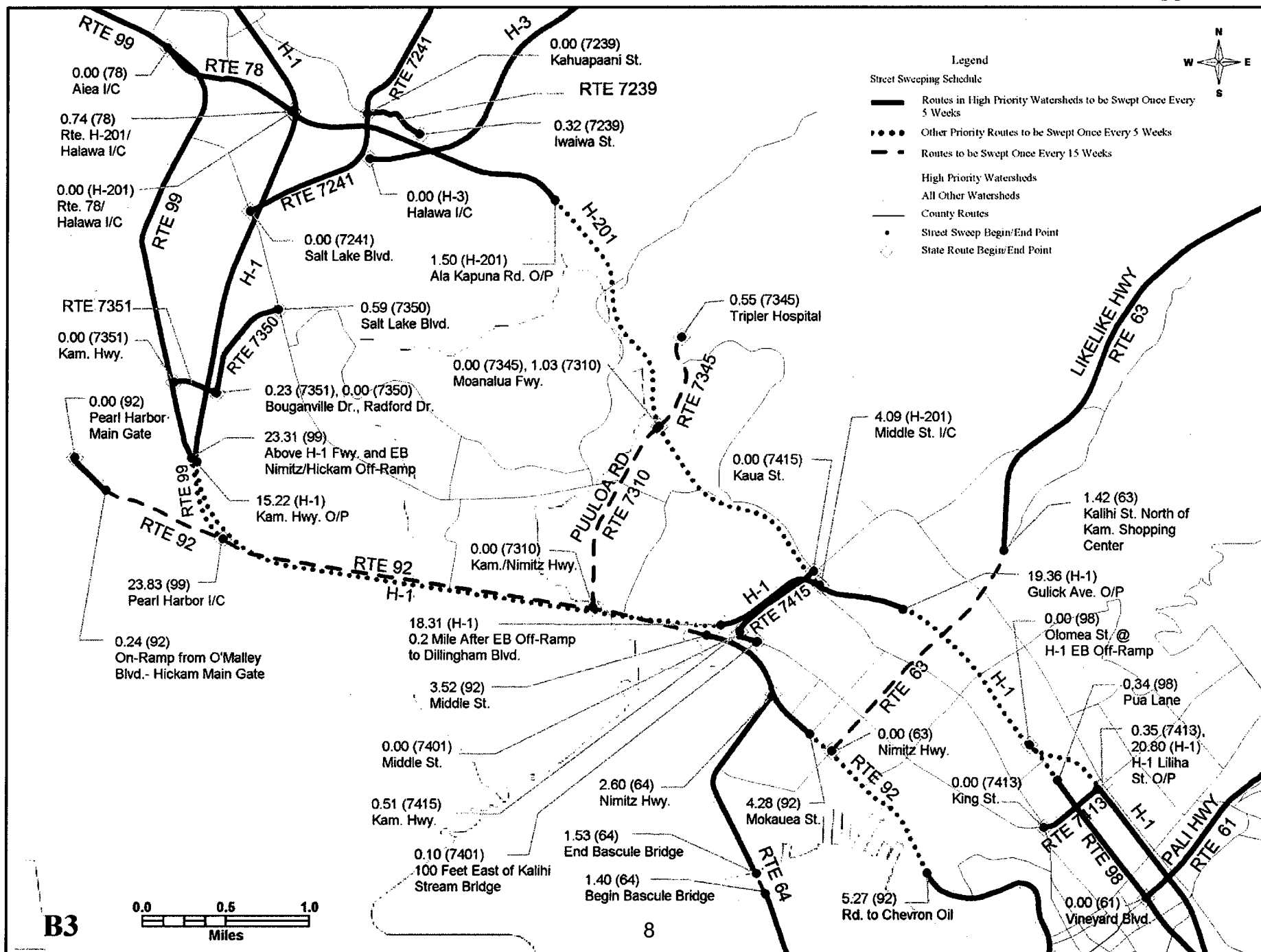


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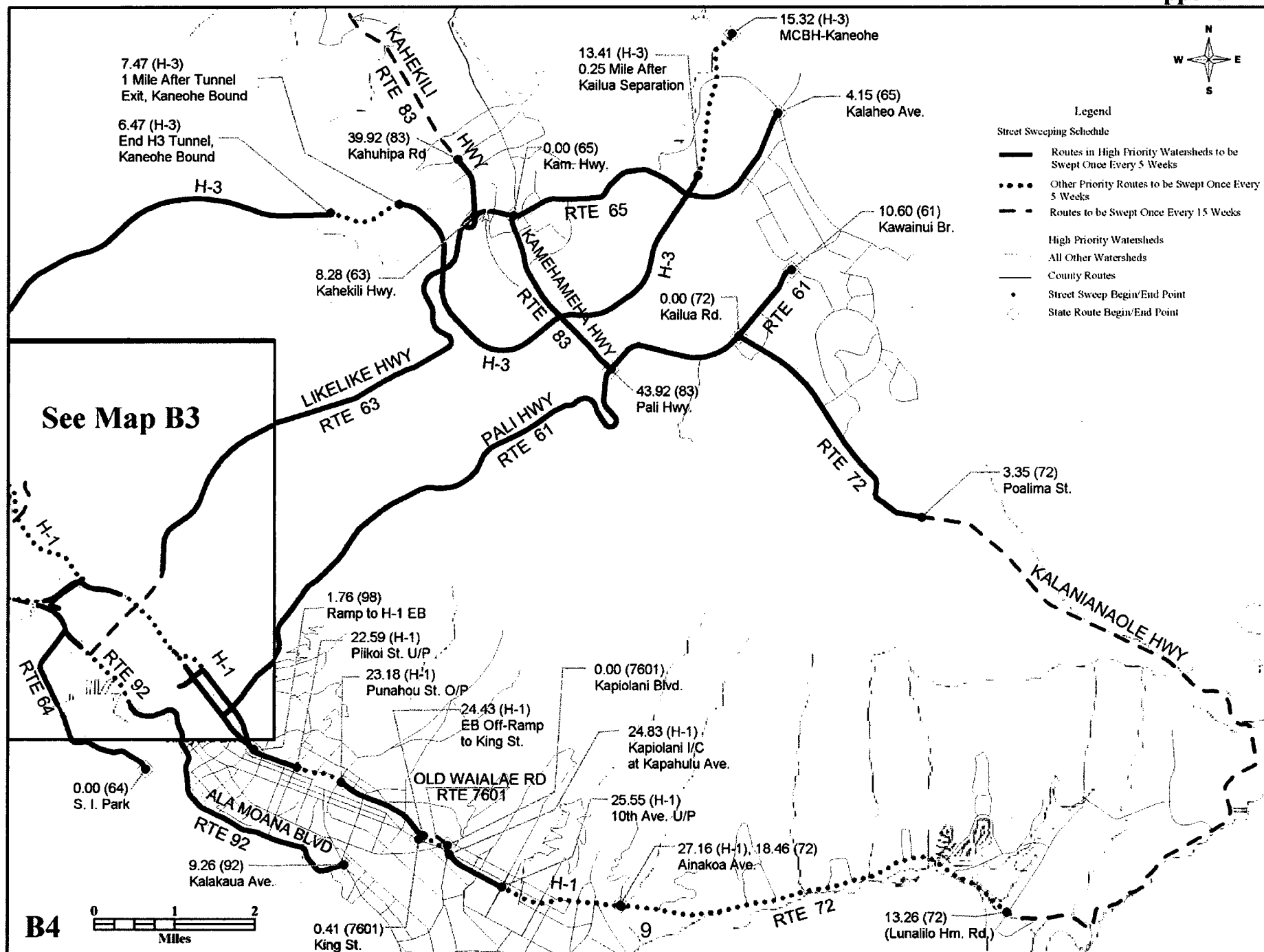




Appendix B



Appendix B



APPENDIX

C

APPENDIX C

DRAINAGE SYSTEM INSPECTION & CLEANING

1. This requirement becomes effective upon commencement of service contract, or 60 days post-entry, whichever comes first.
2. For drainage system structures (including, but not limited to, gutters, swales, open channels/ditches, culverts, drain inlets, catch basins, manholes, outfalls, and other accessible discharge points) located in High Priority Watersheds and within HDOT's rights-of-way:
 - a. Complete inventory of, and inspect for sediment, trash, litter, and other gross solids, within one (1) year of effective date.
 - b. Clean, in accordance with SWMPP DR3-1, within one (1) year of effective date.
 - c. Re-inspect, and clean as appropriate and in accordance with SWMPP DR3-1, at least semiannually thereafter.
3. For drainage system structures (including, but not limited to, gutters, swales, open channels/ditches, culverts, drain inlets, catch basins, manholes, outfalls, and other accessible discharge points) not located in High Priority Watersheds, or located within High Priority Watersheds but outside of HDOT's rights-of-way:
 - a. Complete inventory of, and inspect for sediment, trash, litter, and other gross solids, within two (2) years of effective date.
 - b. Clean, in accordance with SWMPP DR3-1, within two (2) years of effective date.
 - c. Re-inspect, and clean as appropriate and in accordance with SWMPP DR3-1, at least annually thereafter.
4. For the purposes of this Appendix the word "culverts" shall mean "accessible points including culvert manholes, entrances, and outfalls."

APPENDIX

D

APPENDIX D

AREAS FOR INSTALLATION OF TEMPORARY EROSION CONTROL MEASURES IN HIGH PRIORITY WATERSHEDS

	Route	Route No.	Direction of Travel	From Mile Post	To Mile Post	Length (feet)	Height (feet)
1.	Interstate H-2	H-2	Wahiawa Bound	0.48	0.80	1690	30
2.	Interstate H-2	H-2	Wahiawa Bound	0.99	1.20	1109	30
3.	Interstate H-2	H-2	Honolulu Bound	1.02	1.21	1003	15
4.	Interstate H-2	H-2	Waianae Exit	0.51	1.71	1056	35
5.	Kamehameha Hwy.	99	Wahiawa Bound	11.28	11.50	1162	50
6.	Kamehameha Hwy.	99	Honolulu Bound	11.95	12.16	1109	50
7.	Kunia Rd.	750	Waipahu Bound	7.02	7.20	950	5 - 25
8.	Kunia Rd.	750	Waipahu Bound	6.54	6.79	1320	2 - 15
9.	Kunia Rd.	750	Wahiawa Bound	6.54	6.79	1320	2 - 15
10.	Kunia Rd.	750	Wahiawa Bound	6.96	7.14	950	5 - 25

APPENDIX

E

APPENDIX E

COMPLIANCE-FOCUSED ENVIRONMENTAL MANAGEMENT SYSTEMS ("EMSs")

1. Purpose. The purpose of this supplemental environmental project ("SEP") is to develop and implement EMSs that conform to the standards identified below for the operations and facilities of the Airports, Harbors, and Highways Divisions of the HDOT including, at a minimum, those facilities specifically identified in Attachment 1.

2. Initial Auditor(s). No later than 60 days after entry of the Consent Decree to which this Appendix is attached ("Consent Decree"), HDOT shall provide to EPA and to DOH ("the Parties") in writing:

(a) the name, affiliation, and address of the Initial Auditor(s) selected by HDOT to conduct an Initial EMS Review and Evaluation;

(b) evidence that each Initial Auditor(s) satisfies the qualification requirements and proficiency criteria of ISO 14012 "Guidelines for environmental auditing - Qualification criteria for environmental auditors" (First Edition, 1996-10-01) and that the team conducting the Initial EMS Review and Evaluation, in composite, has a working knowledge of HDOT's operations and the facilities identified in Attachment 1, or similar operations, and of the federal and state environmental requirements which apply to HDOT's operations and these facilities;

(c) evidence that each Initial Auditor(s) has the necessary expertise to develop and implement the Compliance, Best Management Practices and Pollution Prevention ("P2") Checklists required below; and

(d) evidence that each Initial Auditor(s) has the necessary training experience to conduct the training sessions required below.

3. If EPA (after consultation with DOH) determines that the proposed Initial Auditor(s) does not meet the qualifications set forth in the previous Paragraph or that past or existing relationships with the Initial Auditor(s) could affect the Initial Auditor(s)' ability to exercise the independent judgment and discipline required to conduct the review, EPA may disapprove such Initial Auditor(s) and HDOT shall propose another Initial Auditor(s) for approval by EPA (after consultation with DOH) within 30 days of HDOT's receipt of EPA's determination. If, at any time, HDOT wishes to contract with a new Initial Auditor(s), HDOT shall notify the United States and DOH in writing and provide an explanation for the change and shall propose another Initial Auditor(s) to EPA for approval. Any subsequent Initial Auditor(s) must satisfy the qualification requirements of the preceding Paragraph.

4. HDOT shall not, in any way, through its own actions or through the actions of others, interfere with the ability of the Initial Auditor(s) to carry out his or her review of the elements and terms described in this Appendix in an independent fashion.

5. Initial EMS Review and Evaluation. Upon approval of the Initial Auditor(s), HDOT shall direct the Initial Auditor(s) to conduct and complete an Initial EMS Review and Evaluation (commonly referred to as a “gap” analysis) for HDOT’s operations at the Harbors (including Honolulu Harbor), Airports (including Honolulu Airport), and Highways Divisions, including a representative sampling of the facilities identified in Attachment 1. The Initial EMS Review and Evaluation shall include an evaluation of the current compliance status, management practices, and pollution prevention (“P2”) opportunities at the Divisions, as well as an assessment of any existing EMS, environmental practices, compliance, or P2 programs at the facilities. The Initial Auditor(s) shall review and evaluate any current EMS using the elements set forth in Paragraph 15 below, to identify where systems or subsystems have not been adequately developed or implemented.

6. The HDOT staff, especially the Operations staff, shall be actively involved in the Initial EMS Review and Evaluation. A primary purpose of this Initial EMS Review and Evaluation shall be to collect information for development of the Compliance, Best Management Practices, and Pollution Prevention Checklists and the training sessions required in Paragraphs 9 and 11 below.

7. Any violations of federal, state, or local environmental laws, regulations, or permits or of any other enforceable agreement requiring environmental compliance identified during the Initial EMS Review and Evaluation shall be disclosed and corrected in accordance with Paragraphs 15.F.5 and 36.

8. The Initial EMS Review and Evaluation shall be completed no later than 120 days after approval of the Initial Auditor(s). The results of the Initial EMS Review and Evaluation shall be documented in a report prepared by the Initial Auditor(s) and provided to HDOT, including all Deputy Directors and the Director. This report shall be made available to EPA and DOH upon request.

9. The Compliance, Best Management Practices and Pollution Prevention Checklists (“the Checklists”). No later than 120 days after approval of the Initial Auditor(s), the Initial Auditor(s) shall develop and submit to EPA for review and approval pursuant to Part III of the Consent Decree (Approval Process):

(a) Compliance Checklist(s) of federal, state, local requirements, as described in Paragraph 15.D.2. The Compliance Checklist(s) shall also include the legal citation for any legal requirement, a calendaring system to identify when compliance obligations are due and forms to assist in the facility evaluations.

(b) Best Management Practices Checklist(s) which shall provide a schedule of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge, release, or emission of pollutants; and

(c) Pollution Prevention ("P2") Checklist(s) which shall provide opportunities for preventing, reducing, recycling, reusing, and minimizing waste and emissions, including procedures to encourage material substitutions.

10. Each of the above Checklists shall require ongoing updates and supplementation and shall be tailored to the different operations of HDOT's Harbors, Airports, and Highways Divisions. The Checklists are compliance assistance tools developed by HDOT for use by HDOT. The Checklists are not intended to create rights, substantive or procedural, enforceable by any party in litigation with any regulatory agencies, including, but not limited to, DOH or EPA. EPA and DOH do not vouch for the completeness of the Checklists. The Checklists do not operate in lieu of complying with any legal requirements.

11. Training Course. No later than 120 days after approval of the Initial Auditor(s), the Initial Auditor(s) shall develop and submit to EPA for review and approval pursuant to Part III of the Consent Decree (Approval Process) a detailed training course outline and schedule with all materials for the first two training sessions for each of HDOT's Divisions. The training course and materials shall address, at a minimum, the following:

(a) The training course shall be a multi-session course designed to allow HDOT personnel involved in the course to participate in a session and then return to their respective facilities to apply what has been learned in order to implement the EMSs as defined herein;

(b) The implementation of the Checklists at each facility shall be an integral part of the training and implementation of the EMS; and

(c) The training shall focus, in part, on *measuring environmental results*. As an integral part of the training sessions, HDOT shall develop baseline information for the different environmental aspects of operations, including water usage, wastewater (including stormwater runoff), chemical usage, and energy usage for its facilities. A baseline shall be developed for environmental compliance by implementing the compliance checklist at each facility at the beginning of the training. Goals shall be established for environmental improvement. The difference between the baseline and the information developed during the internal evaluation provides an indicator of the environmental improvement resulting from the EMS.

(d) One follow up training workshop may be conducted as part of the EMS SEP after the EMS Manual has been submitted in accordance with Paragraph 16 below.

12. No later than 30 days after approval of the detailed training course outline and the materials for the first two training sessions, the Initial Auditor(s) shall start training sessions for each of the Divisions. The training courses shall be completed no later than 180 days from the date of the initial training session.

13. Action Plan for EMS Development. No later than 120 days after approval of the Initial Auditor(s), the Initial Auditor(s) shall develop and submit to EPA for review and approval pursuant to Part III of the Consent Decree (Approval Process), an Action Plan describing in a comprehensive manner how the Initial Auditor(s) shall work with the Divisions and facilities to facilitate their development of EMSs for the operations at each of the Divisions and the facilities identified in Attachment 1. The comprehensive EMSs shall, at a minimum, address the 12 key elements set forth in Paragraph 15 below. The Action Plan shall also, at a minimum, include the development of an EMS Manual for each Division that complies with Paragraphs 9, 10, 11, 13, 14, and 35 of this Appendix. The Action Plan shall describe the process by which the Checklists and training course will be integrated to develop and implement the EMSs. As part of the HDOT's facilities' EMS, HDOT shall develop and implement procedures for oversight of the facilities of tenants, contractors, and other users of the ports, airports, and highways subject to the jurisdiction of HDOT. The Action Plan shall include a schedule for implementing the Action Plan and final development of the EMS Manual(s), as required by Paragraph 16, and the Evaluation Report, as required by Paragraph 17.

14. Action Plan's Emphasis on Harbors Division. The Action Plan shall require that the Compliance and Best Management Practices Checklists be implemented at the Harbors Division as a priority. As a mandatory condition for certifying that the SEP has been fully implemented in accordance with Paragraph 21 of the Consent Decree (SEP Completion Report), the Harbors Division shall:

- (a) apply the Compliance and Best Management Practices Checklists to the Honolulu Harbor, including tenants and other users;
- (b) certify that any compliance violations at the Harbors Division's facilities identified in Attachment 1 that have been discovered by the HDOT, Initial Auditor, or the Final Auditor during the initial review, development, implementation, and final audit of the EMS(s) shall have been corrected or are the subject of a compliance schedule as required by Paragraphs 15.F.5 and 36; and
- (c) as part of the HDOT's facilities' EMS, develop and implement procedures for oversight of the facilities of tenants and other users of the ports subject to the jurisdiction of HDOT.

15. The Elements of the EMS. Following the completion of the training course, HDOT shall complete the EMS Manuals. The EMS Manuals shall be organized to clearly address the following issues:

A. Environmental Policy

1. This policy, upon which the EMS is based, must clearly communicate management commitment to achieving compliance with applicable federal, state, and local environmental statutes, regulations, enforceable agreements, and permits (hereafter, “environmental requirements”), minimizing the risks to the environment from unplanned contaminant releases, and continual improvement in environmental performance. Further, the policy should address management’s commitment to coordinate activities of HDOT to ensure that there is effective oversight to address the potential and actual environmental impacts resulting from the tenants, contractors, and other users of the ports, highways, and airports subject to the jurisdiction of HDOT. The policy should also state management’s intent to seek adequate personnel and other resources for the EMS so that there is dedicated personnel identified to ensure the ongoing implementation of the EMS and that environmental responsibilities are not viewed as collateral duties to the staffs numerous other responsibilities. As evidence of management commitment, the Division Directors of the Harbors, Airports, and Highway Divisions shall personally review and certify as to the status of the EMSs for each of their respective facilities and the Division on a biannual basis. The certification shall be submitted to EPA. The Director of HDOT shall review the status of the EMS annually.

B. Organization, Personnel, and Oversight of EMS

1. Describes, organizationally, how the EMS is implemented and maintained.
2. Includes organization charts that identify units, line management, and other individuals having environmental performance, risk reduction, and regulatory compliance responsibilities.
3. Identifies and defines specific duties, roles, responsibilities, and authorities of key environmental program personnel in implementing and sustaining the EMS (e.g., could include position descriptions and performance standards for all environmental department personnel, and excerpts from others having specific environmental program and regulatory compliance responsibilities).
4. Includes ongoing means of communicating environmental issues and information to all organization personnel, on-site service providers, tenants, and contractors, and for receiving and addressing their concerns.

C. Accountability and Responsibility

1. Specifies accountability and environmental responsibilities of organization's managers, on-site service providers, tenants, and contractors for environmental protection practices, assuring compliance, required reporting to regulatory agencies, and corrective actions implemented in their area(s) of responsibility.
2. Describes incentive programs for managers and employees to perform in accordance with compliance policies, standards, and procedures.
3. Describes potential consequences for departure from specified operating procedures, including HDOT liability for civil/administrative penalties imposed as a result of noncompliance.

D. Environmental Requirements

1. Describes process for identifying, interpreting, and effectively communicating environmental requirements to affected organization personnel, on-site service providers, tenants, and contractors, and then ensuring that facility activities conform to those requirements (i.e., ongoing compliance monitoring). Specifies procedures for prospectively identifying and obtaining information about changes and proposed changes in environmental requirements, and incorporating those changes into the EMS.
2. Includes a compliance checklist of federal, state, local requirements and best industry practices. These requirements shall incorporate, but are not limited to, the terms in permits, orders, and enforceable agreements. The requirements addressed by the Compliance Checklist are based on the Clean Water Act, 33 U.S.C. §§ 1311–1346 (including compliance with the Storm Water and SPCC requirements of the Act); the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6921–6939e; and the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §§ 11001–11023. This Compliance Checklist shall be updated periodically and used for routine compliance audits, as appropriate. All compliance violations identified by the Compliance Checklist, or otherwise in conjunction with the EMS, shall be corrected in accordance with the terms of Paragraphs 15.F.5 and 36.
3. Establishes and describes processes to ensure communication with regulatory agencies regarding environmental requirements and regulatory compliance.

E. Assessment, Prevention, and Control

1. Identifies an ongoing process for assessing operations, for the purposes of preventing and controlling or minimizing reasonably foreseeable releases or discharges, ensuring environmental protection, and maintaining compliance with

statutory and regulatory requirements. This section shall describe monitoring and measurements, as appropriate, to ensure sustained compliance. It shall also include identifying operations and waste streams where equipment malfunctions and deterioration, operator errors or deliberate malfeasance, and discharges or emissions may be causing, or may lead to: (a) releases of hazardous waste or other pollutants to the environment, (b) a threat to human health or the environment, or c) violations of environmental requirements.

2. Describes process for identifying operations and activities where documented standard operating practices ("SOPs") are needed to prevent potential violations or unplanned pollutant releases, and defines a uniform process for developing, approving, and implementing the SOPs.
3. Describes a system for conducting and documenting routine, objective, self-inspections by department supervisors and trained staff, especially at locations identified by the process described in Paragraph 15.E.1, to check for malfunctions, deterioration, worker adherence to SOPs, and unauthorized releases.
4. Describes process for ensuring input of environmental requirements (or concerns) in planning, design, and operation of ongoing, new, and/or changing buildings, processes, equipment, and maintenance activities.

F. Environmental Incident and Noncompliance Investigations

1. Describes standard procedures and requirements for internal and external reporting of potential violations and release or discharge incidents or other non-compliance.
2. Establishes procedures for investigation and prompt and appropriate correction of potential violations. The investigation process includes root-cause analysis of identified problems to aid in developing the corrective actions.
3. Describes a system for development, tracking, and effectiveness verification of corrective and preventative actions.
4. Each of these procedures shall specify self-testing of such procedures, where practicable.
5. Provide prompt notice of all violations to the regulatory agency and correct all compliance violations identified by the EMS for facilities identified in Attachment 1 within 21 days, unless a legal requirement requires more prompt correction. If it is determined that the violation cannot be corrected within 21 days, a compliance

schedule should be submitted to the HDOT EMS manager and to the applicable regulatory agency.

G. Environmental Training, Awareness, and Competence

1. Identifies other specific education and training required for organization personnel, as well as process for documenting training provided.
2. Describes program to ensure that organization employees are aware of its environmental policies and procedures, environmental requirements, and their roles and responsibilities within the environmental management system.
3. Describes program for ensuring that personnel responsible for meeting and maintaining compliance with environmental requirements are competent on the basis of appropriate education, training, and/or experience. In particular, training shall be conducted to address any compliance violations identified by the EMS.
4. Identifies training on how to recognize operations and waste streams where equipment malfunctions and deterioration, operator errors or deliberate malfeasance, and discharges or emissions may be causing, or may lead to: (a) releases of hazardous waste or other pollutants to the environment, (b) a threat to human health or the environment, or c) violations of environmental requirements.

H. Environmental Planning and Organizational Decision-Making

1. Describes how environmental planning will be integrated into organizational decision-making, including plans and decisions on capital improvements, product and process design, training programs, and maintenance activities.
2. Requires establishing written targets, objectives, and action plans by at least each operating organizational subunit with environmental responsibilities, as appropriate, including those for contractor operations conducted at the facility, and how specified actions will be tracked and progress reported. Targets and objectives must include actions which reduce the risk of noncompliance with environmental requirements and minimizing the potential for unplanned releases.

I. Maintenance of Records and Documentation

1. Identifies the types of records developed in support of the EMS (including audits and reviews), who maintains them and where, and protocols for responding to inquiries and requests for release of information.

2. Specifies the data management systems for any internal waste tracking, environmental data, and hazardous waste determinations.
3. Specifies document control procedures.

J. Pollution Prevention/Best Management Practices Program

1. Describes an internal program for preventing, reducing, recycling, reusing, and minimizing waste and emissions, including procedures to encourage material substitutions. HDOT shall evaluate P2 opportunities which shall include an identification of the opportunities, an evaluation of whether those opportunities are technically feasible, a calculation of the cost and a quantitative assessment of the pollution reduction. The Pollution Prevention and Best Management Practices Checklists will serve as a basis for this program.
2. To the extent that the training and development of the EMS Manual for a Division has been completed for the identified facilities and available funding from the SEP remains, the Division can select additional SEP projects arising out of the training, so long as such projects are consistent with the terms and conditions of the EPA Supplemental Environmental Projects Policy (May 1, 1998) and approved by EPA. If there are remaining funds available for a Division, another Division can apply to the HDOT EMS manager for use of the funds to conduct one of the approved SEP projects.

K. Continuing Program Evaluation and Improvement

1. Describes program for periodic (at least annually) evaluation of the EMS, including incorporating the results of the assessment into program improvements, revisions to the manual, and communicating findings and action plans to affected employees, on-site service providers, tenants, and contractors.
2. Describes a program for periodic audits (at least annually) of facility compliance with environmental requirements. Audit results are reported to upper management and potential violations are addressed through the process described in Paragraphs 15.F.5 and 36. In addition, an audit by an independent auditor will be conducted every four years.

L. Public Involvement/Community Outreach

1. Describes a program for ongoing community education and involvement in the environmental aspects of the organization's operations and general environmental awareness.

16. Submission of the EMS Manual. No later than 60 days after completion of the training course, HDOT shall submit to EPA complete EMS Manuals addressing the EMS provisions in Appendix E herein that relate to the facilities identified in Attachment 1 for review and approval in accordance with Part III (Approval Process) of the Consent Decree. A copy of the complete EMS Manuals shall be provided to DOH. Upon approval of the EMS Manual(s), HDOT shall immediately commence implementation of the EMS(s) in accordance with the schedule that shall be provided in the EMS Manual(s).

17. Evaluation Report. No later than 90 days after the EMS Manuals are approved, HDOT shall submit to EPA and to DOH an Evaluation Report describing the activities associated with the development of the EMS at the facilities identified in Attachment 1. The Evaluation Report shall include the following:

- (a) the implementation status of each of the twelve EMS elements identified in Paragraph 15;
- (b) baseline information for the different environmental aspects including water usage, wastewater (including stormwater runoff), hazardous waste, and energy usage;
- (c) a completed Compliance Checklist for each of the identified environmental requirements;
- (d) a corrective action schedule for any identified non-compliance; and
- (e) an identification of P2 opportunities, including an evaluation of whether those opportunities are technically feasible, a calculation of their cost and a quantitative assessment of the projected pollution reduction.

18. Final Auditor. HDOT shall provide for a third party (Final Auditor) to perform a Final Audit of the EMSs at each of HDOT's Divisions and facilities identified in Attachment 1. HDOT's contract with the Final Auditor shall require the Final Auditor to review and to evaluate the implementation of the systems, policies, and procedures described in the EMS Manuals, using the criteria set forth in Paragraphs 24 and 25 of this Appendix, as criteria for the evaluation. No later than 60 days after the EMS Manuals are approved HDOT shall provide to the EPA and DOH in writing:

- (a) the name, affiliation, qualifications and address of an independent auditor who was not involved in the Initial EMS Review and Evaluation ("the Final Auditor") selected by HDOT to perform an audit of HDOT's operations at each of its Divisions and the facilities identified in Attachment 1;

(b) evidence that the selected Final Auditor satisfies the independence and proficiency criteria contained in the ISO 14012 "Guidelines for environmental auditing - Qualification criteria for environmental auditors"(First edition, 1996-10-01).

(c) evidence that the Final Auditor has the necessary expertise to evaluate all the terms and conditions described in Paragraphs 9, 10, 11, 13, 14, 15, and 35, including expertise and competence in the regulatory programs under federal, state, and local environmental laws; and

(d) a schedule, including milestones, for conducting the review.

19. The Final Auditor must be capable of exercising the same independent judgment and discipline that a certified public accounting firm would be expected to exercise in auditing a publicly held corporation.

20. If EPA (after consultation with DOH) determines that the proposed Final Auditor does not meet the qualifications set forth in the previous Paragraph or that past or existing relationships with the Final Auditor could affect the Auditor's ability to exercise the independent judgment and discipline required to conduct the review, EPA may disapprove such Auditor and HDOT shall propose another Final Auditor for approval by EPA within 30 days of HDOT's receipt of EPA's determination. If, at any time, HDOT wishes to contract with a new Final Auditor because the approved Auditor is unable to fulfill the remaining tasks under the Final Audit of the EMSs, or for any other reason, HDOT shall notify EPA and DOH in writing and provide an explanation for the change and shall propose another Final Auditor to EPA for approval. Any subsequent Final Auditor must satisfy the qualification requirements outlined in Paragraphs 18 and 19 above.

21. HDOT shall not, in any way, through its own actions or through the actions of others, interfere with the ability of the Final Auditor to carry out his or her review of the elements and terms described in this Appendix in an independent fashion.

22. HDOT shall identify any and all site-specific training requirements for the Final Auditor and shall ensure that the requirements are met prior to conducting the audit.

23. The EMS Final Audit Plan. HDOT shall require the Final Auditor to prepare an EMS Final Audit Plan, for purposes of implementing the EMS Final Audit as described in Paragraphs 24 and 25 below, with an implementation schedule. The draft EMS Final Audit Plan shall be submitted no later than 45 days after the EPA's approval of the Final Auditor to EPA for review and approval pursuant to Part III of the Consent Decree (Approval Process). A copy of the draft EMS Final Audit Plan shall also be submitted to DOH.

24. HDOT shall require the Final Auditor to conduct an EMS Final Audit to evaluate the adequacy of EMS implementation, from top management down, throughout each

major organizational unit at the facilities, and to identify where further improvements should be made to the EMS. The Final Auditor shall include a comprehensive audit, with personal visit(s) by the Final Auditor, to determine conformance with the items identified in Paragraph 25 for all facilities identified in Attachment 1 located on Oahu. For all of the other facilities identified in Attachment 1, the HDOT EMS Manager shall have discretion as to: a) whether there will be personal visit(s) by the Final Auditor; and b) the extent of the evaluation needed to establish conformance with the elements identified in Paragraph 25 herein. For example, audits for these other facilities may be conducted by, at a minimum, reviewing the applicable portion of the EMS manual used by the facility and all records documenting EMS activities, in addition to conducting telephone interviews, as deemed appropriate. Notwithstanding the discretion related to the Final Audit, as described in this paragraph, HDOT shall implement an EMS, as developed in accordance with Appendix E, for all of the facilities identified in Attachment 1. The EMS Final Audit shall be conducted in accordance with ISO 14011 (First edition, 1996-10-01), using ISO 14010 (First edition, 1996-10-01) as supplemental guidance.

25. The Final Auditor shall assess conformance with the elements specified in Paragraphs 9, 10, 11, 13, 14, 15, and 35 and with the EMS Manuals, and shall determine the following for the Divisions and for each of the facilities:

- (a) Whether there is a defined system, subsystem, program, or planned task for the respective EMS element;
- (b) To what extent the system, subsystem, program, or task has been implemented and is being maintained;
- (c) Adequacy of each Facility's internal self-assessment procedures for programs and tasks composing the EMS;
- (d) Whether HDOT is effectively communicating environmental requirements to affected parts of the organization, contractors, tenants, users, and on-site service providers;
- (e) Whether further improvements should be made to the EMS;
- (f) Whether there are observed deviations from HDOT's written requirements or procedures;
- (g) Whether continuous improvement is occurring;
- (h) Any violations of federal, state, or local environmental laws, regulations, or permits, or of any other enforceable agreement requiring environmental compliance at the facilities. Any identified violation shall be disclosed and corrected in accordance with Paragraphs 15.F.5 and 36;

- (i) Whether the Checklists have been effectively implemented at the facilities;
- (j) Whether there is sufficient information to measure environmental results as described in Paragraph 11(c); and
- (k) The extent to which the EMS includes effective procedures for oversight of the facilities of tenants, contractors, and other users of the ports, airports, and highways subject to the jurisdiction of HDOT.

26. The EMS Final Audit shall not be initiated until at least 30 days after HDOT submits the Evaluation Report as described in Paragraph 17 above. The EMS Final Audit shall be completed no later than 90 days after HDOT submits the Evaluation Report.

27. Designated representatives from EPA, DOH, and other environmental regulatory agencies may participate in the Final EMS Audit as observers. HDOT shall make timely notification to designated regulatory contacts regarding audit scheduling in order to make arrangements for observers to be present. HDOT personnel may also participate in the on-site audits as an observer(s), but may not interfere with the independent judgement of the Final Auditor.

28. EMS Final Audit Report. HDOT shall direct the Final Auditor to independently prepare an EMS Final Audit Report and concurrently submit the report to HDOT, DOH and EPA within 60 days of completion of the EMS Final Audit. The EMS Final Audit Report shall present the Audit Findings and shall, at a minimum, contain the following information:

- (a) Audit scope, including the period of time covered by the audit;
- (b) The date(s) the on-site portion of the audit was conducted;
- (c) Identification of audit team members;
- (d) Identification of HDOT representatives and regulatory agency personnel observing the audit;
- (e) The distribution for the EMS Final Audit Report;
- (f) A summary of the audit process, including any obstacles encountered;
- (g) Detailed Audit Findings, including the basis for each Finding and each Area of Concern identified;

- (h) Identification of any Audit Findings corrected or Areas of Concern addressed during the audit, and a description of the corrective measures and when they were implemented;
- (i) Certification by the Final Auditor that the EMS Final Audit was conducted in accordance with the provisions of this Decree;
- (j) An identification of any violations of federal, state, or local environmental laws, regulations, or permits, or of any other enforceable agreement requiring environmental compliance at the facilities and any root cause analysis describing the reason for the violations;
- (k) The extent to which the Checklists have been effectively implemented at the facilities;
- (l) The extent to which the facilities are able to measure environmental results as described in Paragraph 11(c) above; and
- (m) How the EMS SEP has applied to contractors, tenants, and other users in accordance with Paragraph 35.

29. If the Final Auditor believes that additional time is needed to analyze available information or to gather additional information, HDOT may request that EPA grant the Final Auditor such additional time as needed to prepare and submit the EMS Final Audit Report. EPA's decision whether to grant additional time shall be final and unreviewable.

30. Corrective Action Plan. Upon receiving the EMS Final Audit Report, HDOT shall conduct a root cause analysis of the identified Audit Findings, as appropriate, and shall investigate all Areas of Concern. No later than 60 days after receiving the EMS Final Audit Report, HDOT shall submit to EPA for review and approval pursuant to Part III of the Consent Decree (Approval Process), a Corrective Action Plan for expeditiously bringing the facilities into full conformance with the EMS provisions in Paragraphs 9, 10, 11, 13, 14, 15, and 35, the EMS Manual(s), and fully addressing all Areas of Concern from the EMS Final Audit Report. A copy of the Corrective Action Plan shall be submitted to DOH. The Corrective Action Plan shall include the result of any root cause analysis, specific deliverables, responsibility assignments, and an implementation schedule.

31. Upon EPA approval of the Corrective Action Plan, in whole or in part, HDOT shall begin implementation of the Corrective Action Plan immediately in accordance with the implementation schedule set forth therein. HDOT shall submit status reports regarding implementation to EPA and to DOH on a quarterly basis, beginning no later than 30 days from EPA's approval of the Corrective Action Plan, in whole or in part, until all approved portions of the Corrective Action Plan have been completed.

32. SEP Completion Report and Corrective Action Plan Completion. Within 30 days after all items in the Corrective Action Plan have been completed, HDOT shall submit to EPA and to DOH:

(a) a SEP Completion Report in accordance with Paragraphs 21 through 23 of the Consent Decree. The SEP Completion Report is subject to Part X (Dispute Resolution) of the Consent Decree. Any disputes concerning the SEP Completion Report are the only disputes arising out of this Appendix that are related to the satisfactory performance of the EMS SEP; and

(b) a written Correction Action Plan Completion Certification to EPA signed by the Director of HDOT.

33. Funding of EMS SEP. HDOT's total expenditure for the EMS SEP shall not be less than \$1,062,500. No part of this expenditure shall include federal funds, including low interest federal loans, federal contracts, or federal grants. Each of the Divisions shall use its share of these dollars to implement an EMS at each of the identified facilities within its Division. SEP funds not spent within four years from the effective date of this Consent Decree shall revert to the U.S. Treasury, unless an extension is agreed to by HDOT and the United States.

34. Eligible SEP Expenses. The Initial Auditor(s)' costs associated with the Initial EMS Review and Evaluation, preparation of the training materials, time for instruction, follow up with facilities on EMS related activities, including, but not limited to, implementing the Checklists and one follow up training session, shall be eligible SEP expenses. Technical support for conducting the projects identified through Paragraph 15.J.2 above may be eligible SEP expenses. Finally, costs associated with the Final Auditor for preparing the EMS Final Audit Plan, conducting the EMS Final Audit, and preparing the EMS Final Audit Report and for technical assistance associated with implementing the Final Auditor's recommendations, not associated with correcting a compliance violation, shall be eligible SEP expenses. No costs associated with HDOT employees participating in training, implementing the EMS or other expenses associated with the EMS (including any costs associated with corrective actions needed for compliance actions identified under the EMS) shall be considered eligible SEP expenses. Also, any costs associated with the injunctive relief required by this Consent Decree shall not be eligible SEP expenses.

35. The Relationship of the EMS SEP to the Contractors, Tenants, and Users. The Checklists shall be used by HDOT personnel, in part, to evaluate the environmental performance of its contractors, tenants, and users. Contractors, tenants, and users of the Harbors, Airports, and Highways Divisions may be invited to attend the training sessions, but they will not be allowed to use SEP funds to discuss their EMS outside the training sessions with the Initial Auditor(s). HDOT shall require contractors to implement the EMS for all activities conducted on HDOT property, as part of future contractual requirements.

36. Violations Discovered in Connection with the Implementation of the EMSs.

All violations of federal, state, or local environmental requirements at HDOT facilities identified in Attachment 1 discovered by HDOT, the Initial Auditor, or the Final Auditor during the initial review, development, implementation, and final audit of the EMS(s) shall:

(a) be disclosed to EPA and corrected in accordance with Paragraph 15.F.5 of this Appendix; and

(b) meet the “voluntary discovery” condition of the “Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations” (“the Audit Policy”), 65 Fed. Reg. 19618 (April 11, 2000).

37. Retention of Rights. Notwithstanding the activities associated with this SEP, the United States and DOH retain its enforcement rights to address any violations.

38. Confidential Business Information (“CBI”). HDOT may, if appropriate, assert that portions of the EMS Manual or reports or other submissions required by this Appendix contain CBI, pursuant to 40 C.F.R. Part 2, Subpart B. Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies the documents or information when submitted to EPA, or if EPA has notified HDOT that the documents or information is not confidential under the standards of 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to HDOT.

ATTACHMENT 1
DOT FACILITY LIST

I. Airports Division.

- a. Hawaii District, Hilo International Airport, DOT Maintenance Baseyard
- b. Hawaii District, Kona International Airport at Keahole, DOT Maintenance Baseyard
- c. Hawaii District, Waimea-Kohala Airport, DOT Maintenance Baseyard
- d. Kauai District, Lihue Airport, DOT Maintenance Baseyard
- e. Oahu District, Honolulu International Airport, DOT Maintenance Baseyard
- f. Oahu District, Dillingham Airfield, DOT Maintenance Baseyard
- g. Oahu District, Kalaeloa Airport, DOT Maintenance Baseyard
- h. Maui District, Kahului Airport, DOT Maintenance Baseyard
- i. Maui District, Kapalua Airport, DOT Maintenance Baseyard
- j. Maui District, Lanai Airport, DOT Maintenance Baseyard
- k. Maui District, Molokai Airport, DOT Maintenance Baseyard

II. Highways Division

- a. Hawaii District, Hilo Baseyard
- b. Hawaii District, Honokaa Baseyard
- c. Hawaii District, Waimea Baseyard
- d. Hawaii District, North Kona Baseyard
- e. Hawaii District, South Kona Baseyard
- f. Hawaii District, Kau Baseyard
- g. Kauai District, Lihue Baseyard
- h. Kauai District, Waimea Baseyard
- i. Oahu District, Kakoi Street Baseyard
- j. Oahu District, Keehi Baseyard
- k. Oahu District, Kaneohe Baseyard
- l. Oahu District, Haaula Baseyard
- m. Oahu District, Wahiawa Baseyard
- n. Oahu District, Waiane Baseyard
- o. Oahu District, Pearl City Baseyard
- p. Oahu District, H-3 Tunnel Maintenance Shop
- q. Maui District, Kahului Baseyard
- r. Maui District, Keanae Baseyard
- s. Maui District, Lanai Baseyard
- t. Maui District, Molokai Baseyard

III. Harbors Division

- a. Hawaii District, Hilo Harbor DOT Maintenance Facility
- b. Hawaii District, Kawaihae Harbor DOT Maintenance Shop

- c. Kauai District, Nawiliwili Harbor DOT Maintenance Facility
- d. Kauai District, Port Allen Harbor DOT Maintenance Shop
- e. Oahu District, Honolulu Harbor DOT Maintenance Facility
- f. Oahu District, Kalaeloa Barbers Point Harbor
- g. Maui District, Kahului Harbor DOT Maintenance Facility

APPENDIX

F

APPENDIX F

COMPLIANCE ASSISTANCE WORKSHOPS

1. HDOT shall provide “Erosion and Sediment Control for Highways” Compliance Assistance Workshops for professional contractors and construction contractors at each of the following six (6) locations: Hilo, Hawaii; Kona, Hawaii; Kauai; Maui; Honolulu, Oahu; and Kapolei, Oahu.
2. HDOT shall provide the cost for one DOH representative to attend each workshop, including transportation to and from Oahu and accommodations as required.
3. HDOT shall provide separate courses for professional contractors and construction contractors. In addition, HDOT shall invite inspectors from each County to attend each workshop.
4. HDOT shall publicize the workshops by giving a minimum of thirty (30) days notice to the applicable organizations.
 - a. The notice shall include the date, time, location, and outline of the workshop.
 - b. The applicable organizations include, but are not limited to, the following organizations:
 - i. American Council of Engineering Companies of Hawaii (ACECH), American Society of Civil Engineers (ASCE) Hawaii Section, Hawaii Society of Professional Engineers (ASPE), Hawaii Water Environment Association (HWEA), and Institute of Transportation Engineers (ITE) for professional contractors.

- ii. Building Industry Association of Hawaii (BIA-Hawaii) and General Contractors Association of Hawaii (GCA), and the Contractor's Associations on the islands of Maui, Kauai, and Hawaii for construction contractors.
5. Each course shall take one day (minimum of 6 hours of instruction).
6. Within thirty (30) days from the date of entry of the Consent Decree, HDOT shall submit draft course outlines to EPA and DOH for approval pursuant to Section III of this Consent Decree. The course outlines shall, at a minimum, accomplish the following:
 - a. These one day courses shall provide participants with a thorough understanding of the principles of erosion and sediment control and how they uniquely apply to highway projects. The regulatory requirements shall also be discussed. The emphasis of both courses shall be selecting, designing, implementing, and evaluating the effectiveness of Best Management Practices and Erosion and Sediment Control Plans.
 - b. The following topics shall be covered in the course:
 - Erosion and Sediment Control Process
 - Regulatory Requirements
 - Overview and Development of erosion control plans
 - Stabilization Methods
 - Structural Erosion Control Methods
 - Design Issues and Considerations
 - Inspection and Monitoring Requirements
 - c. Upon completion of the course, the attendees should be able to:
 - Understand the erosion and sediment control process and the factors which influence erosion and sedimentation.

- Comprehend the regulatory issues which relate to erosion control for highways.
 - Follow the basic procedures for developing erosion control plans.
 - Describe the stabilization methods used in highway applications.
 - Describe the structural erosion control measures used in highway applications.
 - Perform basic design calculations for erosion control measures.
 - Understand inspection and monitoring requirements.
7. Within ninety (90) days from the date of entry of the Consent Decree, HDOT shall commence offering the first workshop. All twelve (12) workshops shall be completed by HDOT no later than fifteen (15) months from the date of entry of the Consent Decree.
8. HDOT shall document attendance at the workshops with sign-in or registration sheets. These sheets, along with copies of the notice described in Paragraph 4 and the list of associated recipients, shall be submitted in HDOT's End-of-Year Reports.

APPENDIX

G

APPENDIX G

LIST OF CCH MANUAL LOCATIONS HIGHWAYS DIVISION

1. Construction & Maintenance Branch
 - a. Construction Section (4 Employees, 1 Manual)
 - b. Environmental Section (2 Employees, 1 Manual)
 - c. Maintenance Section (4 Employees, 1 Manual)
2. Planning Branch
 - a. Advance Planning Section (7 Employees, 1 Manual)
 - b. Highway Planning Survey Section (18 Employees, 2 Manuals)
 - c. System Planning Section (6 Employees, 1 Manual)
3. Materials Testing & Research Branch
 - a. Research & Technology Transfer Section (7 Employees, 1 Manual)
 - b. Geotechnical & Pavement Design Section (9 Employees, 1 Manual)
 - c. Bituminous Materials Section (9 Employees, 1 Manual)
 - d. Structural Material Section (8 Employees, 1 Manual)
4. Design Branch
 - a. Bridge Design Section (14 Employees, 1 Manual)
 - b. Highway Design Section (25 Employees, 2 Manuals)
 - c. Hydraulic Design Section (9 Employees, 3 Manuals)
5. Traffic Branch
 - a. Traffic Design Service Section (7 Employees, 1 Manual)
 - b. Traffic Operation Section (10 Employees, 1 Manual)
6. Oahu District
 - a. Field Offices
 - i. Halawa - Upper (14 Employees, 1 Manual)
 - ii. Halawa - Lower (13 Employees, 1 Manual)
 - iii. Kili Hau (14 Employees, 1 Manual)
 - iv. Kaneohe (12 Employees, 1 Manual)
 - v. Pearl City (10 Employees, 1 Manual)
 - vi. Salt Lake (14 Employees, 1 Manual)
 - b. Maintenance Section
 - i. NPDES (4 Employees, 1 Manual)

- ii. Facility Engineering (5 Employees, 1 Manual)
 - iii. Field Engineering (7 Employees, 1 Manual)
 - iv. Equipment Service & Repair Unit (2 Employees, 1 Manual)
 - v. Highway Electrical Unit (13 Employees, 1 Manual)
 - vi. Highway Maintenance Unit (108 Employees, 7 Manuals)
 - c. Tunnel Section (40 Employees, 3 Manuals)
- 7. Hawaii District
 - a. Design Section (7 Employees, 1 Manual)
 - b. Construction Section (19 Employees, 1 Manual)
 - c. Maintenance Section (17 Employees, 1 Manual)
- 8. Maui District
 - a. Engineering Section (5 Employees, 1 Manual)
 - b. Construction Section (8 Employees, 1 Manual)
 - c. Survey Unit (4 Employees, 1 Manual)
 - d. Maintenance Section (11 Employees, 1 Manual)
- 9. Kauai District
 - a. Construction/Maintenance Section (20 Employees, 2 Manuals)